

Kristian Wasastjerna 666813
Jarno Venäläinen 654249
Ville Piesala 527253
Vesa Ala-Laurinaho 649720

Game structure

- Levels
 - multiple rooms
 - One array per level
- Every third(?) level has a shop
- No save system
 - Game always starts from the beginning (level 0)
- There are 10 floors (Levels) in the game. Floor 5 and 10 are bosses.

Game design

- Game has an innate clock (2 tick per second) and the player and creatures are gated at max 1 action (movement, interact, attack etc.) per tick
- Start at lvl 0 (base/home with shop)
- Beat level in order to get key to enter the next level
- Level design
 - Puzzles
 - Gain items
 - Chance to gain the key to progress next level
 - Enemies
 - Gain XP
 - Items
 - Gold
 - Chance to gain the key to progress next level
- Earn XP to level up
 - Every level gained
 - Base stats increase
 - HP +1
 - etc...
- Perks
 - Health regeneration
 - Extra Damage
 - Extra defence
 - Etc.

The map is multiple arrays (levels), where each element (class tile) has a value which represents a wall/air etc.

Objects that inhabit the map have the classes creature, friendlies, pickup item, class tile which have sub classes as needed.

Classes

- Collectable / Pick up item

- Weapon
 - Food
 - Armour
 - Key
 - Class properties
 - Weight
- Class tile / interactable
 - Class properties
 - Press input key for action
 - Doors
 - Buttons
 - Health replenish stations? Well
 - Air
 - Wall
- Creature (abstract class)
 - Class properties
 - HP
 - Enemy 1
 - Enemy 2
- Friendlies
 - Class properties
 - Interact/talk
- Player
 - Class properties
 - XP/lvl
 - Health
 - Damage/strength
 - Resistance (physical/magic)
 - Mana/resource bar (special attack)
 - Resource regen
 - Equipped items
 - Inventory/backpack
 - Active perks
 - Place on array/location

Libraries

<ctime>

<iostream>

<SFML>

etc basic libraries...

GUI is first done in Terminal, after the game works we try to make GUI with SFML.

TO-DO

- Internal clock
- Player movement

- Creating and testing different tiles
- Loading levels from file into array
- Room transitions
- Combat
- Interaction with friendlies, shops etc.
- Inventory
- Level-up system
- Perk system
- Creating rooms
- Creating creatures
- Creating pick-ups

while true

```

    While time()-timestamp < 0.5s
        odota inputtia
    timestamp = time()
    suorita player
    for enemy
        suorita enemy
    for npc
        suorita npc

```

Ville Piesala

- Basic Structure
 - Map
 - Internal clock
- Loading rooms from file
- Different rooms planning and drawing

Jarno Venäläinen

- Player
 - Player position
 - X & Y
 - Movement
 - Arrow keys
 - Stats
 - HP / Health
 - Attack
 - Normal Attack
 - Special Attack
 - Defence
 - Shields
 -
 - Perk system
 - Perk functions in class
 - Level-UP system

- Pick-UP system
 - Personal notes
 - If collectable
 - Add to inventory
- Inventory
 - Collectable items
 - Keys
 - etc...
- Personal notes
 - Equipment own vector
 - Items own vector

Kristian Wasastjerna

- GUI

Vesa Ala-Laurinaho

- Creatures
 - Slight randomness in base stats;
 - damage
 - reduction
 - health
 - Monster-level
 - Aggressiveness?
 - Kill rewards:
 - gold
 - items
 - xp
 - Friendlies
 - Interact
 - talk
 - Shops
 - Items to sell as vector
 - Do we need to inspect
 - Combat
 - Items
 - weapons
 - Attack speed
 - Attack damage
 - Special attack
- Stats given

Modules:

main.cpp

Creatures.hpp

Player.hpp

Friendlies.hpp

Pickup.hpp

Draw.cpp (for terminal UI)

Room.cpp

Tiles.cpp
GUI.cpp (for graphical UI)

Project Timeline

- Week 44 (1.11 - 7.11)
 - Project Plan D.L. 5.11
- Week 45
 - Working on backend etc
- Week 46
 - Prototype level is completed, able to play a single level (minimal content) and test all mechanics
- Week 47
 - Working on GUI
 - Working on adding more content, randomizing maps, monsters etc.
- Week 48
 - Final project is finished
- Week 49 (6.12 - 12.12)
 - Project D.L 12.12